

CLAIMS

1. An instrument (1) for high-precision or surgical applications of a minimally invasive nature, comprising a distally positioned directable head (2), a shaft (3) upon which the head (2) is positioned, and a proximal end (4) equipped for operating the head (2), wherein a ring of cables (5) comprising longitudinally extending cables (6) connects to the head (2), which cables are fixedly secured in the radial direction, **characterised** in that each cable (6) of the ring of cables (5) is disposed such that at least a part of both sides is in direct contact with another cable (6) of the ring of cables (5).

2. An instrument according to claim 1, **characterised** in that the ring of cables (5) is designed for mechanically coupling the head (2) to the handgrip (4).

3. An instrument according to claim 2, **characterised** in that the ends of at least some of the cables (6) of the ring of cables (5) possess a fastening to the head (2) and to the proximal end (4).

4. An instrument according to claim 3, **characterised** in that the fastening (9) is embodied as an interior ring (10) and an exterior ring (11), which together delimit a slot (12) for clampingly receiving the cables.

5. An instrument according to one of the claims 1-4, **characterised** in that the ring of cables (5) is enclosed by an exterior spring (7) lying against the cables (6) of the ring of cables (5).

6. An instrument according to one of the claims 1-5, **characterised** in that the ring of cables (5) is provided at its exterior side with a construction element selected from the group comprising glass fibres, cables, power cables, power cables surrounded by glass fibres, an optionally torsion-stiff tube or tubes, optionally with lateral scoring and optionally stranded, a bellows, a stent and a spring as specified in WO 02/13682.

7. An instrument according to one of the claims 1-

6, **characterised** in that the ring of cables (5) is provided at its interior side with an interior spring (8) lying against the cables (6) of the ring of cables (5).

8. An instrument according to one of the claims 1-5 7, **characterised** in that the ring of cables (5) is provided at its interior side with a construction element that is selected from the group comprising a bundle of glass fibres, a cable, power cables, a power cable surrounded by a ring of glass fibres, an optionally torsion-stiff tube or tubes, optionally with lateral scoring and optionally stranded, bel- 10 lows, a stent and a spring as specified in WO 02/13682.

9. An instrument according to one of the claims 1-6 and 8, **characterised** in that the construction element lies against the cables (6) of the ring of cables (5).

15 10. An instrument according to claim 8 or 9 wherein the construction element is a cable, **characterised** in that on the head a grab jaw, scissors or clipping tongs are mounted and the cable is embodied as control cable therefor.

11. An instrument according to claim 8 or 9 wherein 20 the construction element comprises at least one power cable, **characterised** in that a camera is mounted on the head and that the power cable serves for the power supply of the camera and/or for transporting image data obtained with the camera.

25 12. An instrument according to one of the preceding claims, **characterised** in that the same is selected from the group comprising laparoscope, thoracoscope, colonoscope, gastro- scope, bronchoscope, endoscope, catheter, surgical drill, urethroscope, laryngoscope, cystoscope, guidable endoscope, 30 guidable drill, gripping tongs, clipping tongs, scissors, co- agulation hook, and generally instruments for ear, nose and throat surgery, eye surgery, neurosurgery and brain surgery.